

LECTURES AND SPECIAL VISITING APPOINTMENTS (continued)

Distinguished Visiting Professor, Scuola S. Anna, Pisa, May 1991.

Keynote Address, Conference on Corporate Governance and Competitive Strategy, University of Minnesota, October 1990.

Opening Address, Annual Meeting of German Academic Business Economists, June 1990.

Hanes-Willis Distinguished Visiting Professor, University of North Carolina/Chapel Hill, March 1990.

Distinguished Speaker, Graduate School of Management, University of California, Irvine, January 1990.

Dunaway Lectures, Michigan State University, May 1988.

Landsdowne Lecture, University of Victoria, March 1988.

Holger Crafoords Memorial Lecture, Lund University, September 1987.

Keynote Lecture, International Association for Research in Industrial Economics (Madrid, Spain), August 1987.

National Program for Advanced Study and Research in China Visiting Scholar Exchange Program, May-June 1987.

Distinguished Visitor, Haverford College, October 1986.

Jahnsson Foundation Lectures in Economics of Organization, Korpilampi, Finland, August 1986.

J. Fish Smith Chair in Economics, Brigham Young University, March 1986.

University Lecture, Temple University, April 1985.

McKay Lecture, University of Pittsburgh, February 1984.

Distinguished Visiting Scholar, Texas A&M, March 1984.

Peterkin Lecture, Rice University, February 1981.

## OTHER APPOINTMENTS

Adjunct Professor, Interuniversity Center for Sociological Theory and Methodology  
(General Secretariat: The Netherlands), 1990- .

## EDITORIAL BOARDS

Co-editor, *Journal of Law, Economics, and Organization*, 1983- .

Associate Editor

*Journal of Economic Behavior and Organization*, 1979- .

*Journal of Japanese and International Economics*, 1987- .

Board of Editors

*Journal of Accounting, Auditing, and Finance*, 1986- .

MIT Press/*Organization Studies*, 1980- .

MIT Press/*Regulation*, 1980- .

*Organization Science*, 1990- .

Scientific Committee

*Journal of Industrial and Corporate Change*, 1991- .

*Cambridge Surveys of Economic Literature*, 1984- .

## ADVISORY BOARDS AND COMMITTEES

Member, Advisory Board, *Institute d'Economie Industrielle, Université des Sciences Sociales de Toulouse*, 1992- .

Member, Advisory Board, *Journal of St. Petersburg University*, 1991- .

Member, Scientific Committee, *School of Applied Social Science, Venice*, 1992- .

Member, Advisory Committee, *Carnegie Bosch Institute for Applied Studies in International Management, Carnegie-Mellon University*, 1990- .

Member, Scientific Committee of the *Erasmus Project in Law and Economics*, 1990- .

Member, Committee of Patronage of the *Erasmus Project in Law and Economics*, 1990- .

Member, Overseas Advisory Board *MITI (Research Institute), Japan*, 1987- .

#### ADVISORY BOARDS AND COMMITTEES (continued)

Member, Advisory Council, Center for the Study of the New Institutional Economics, Saarbrücken, Germany, 1988-.

Director, Corporate Governance Project, American Law Institute, 1981- .

#### PROFESSIONAL ASSOCIATIONS

Member, American Economic Association, 1960- .

Member, American Law and Economics Association, 1991- .

Member, Academy of Management, 1989- .

Chair, Honors and Awards Committee, American Economic Association, 1985-92.

Member, Board of Directors, American Law and Economics Association, 1992- .

#### PREVIOUS AND VISITING ACADEMIC APPOINTMENTS

Assistant Professor of Economics, University of California, Berkeley, 1963-65.

University of Pennsylvania:

Associate Professor, 1965-68.

Professor, 1968-83.

Charles and William L. Day Professor of Economics and Social Science, 1977-83.

Chairperson, Department of Economics, 1971-72 and 1976-77.

Gordon B. Tweedy Professor of Economics of Law and Organization, Yale University, 1983-88.

Visiting Professor, University of Warwick (England), Spring 1973.

Distinguished Visiting Professor, University of Kyoto (Japan), Spring 1983.

Taussig Research Professor of Economics, Harvard University, Spring 1987.

Visiting Professor, Indiana University, Fall 1987.

Visiting Professor of Economics and Transamerica Professor of Business Administration, University of California, Berkeley, Spring 1988.

PREVIOUS AND VISITING ACADEMIC APPOINTMENTS (continued)

Visiting Professor, Saarbrücken University, Spring 1991.

RECENT PAST POSITIONS

Director, Center for the Study of Organizational Innovation, University of Pennsylvania, 1976-83.

Editor or Co-editor, Bell Journal of Economics, 1974-77, 1979-81.

Consultant, National Science Foundation, 1976-77.

Panel Member, Food Safety Regulation and Societal Impact, National Academy of Sciences, 1978-79.

Consultant, Federal Trade Commission, 1978-80.

OTHER SELECTED PAST ACTIVITIES

Economic Consultant, Mayor's Advisory Task Force on CATV and Telecommunications (New York City), 1967-68.

Consultant to the U.S. Department of Justice, 1967-69.

Special Economic Assistant to the Assistant Attorney General for Antitrust, U.S. Department of Justice, 1966-67.

Consultant to the RAND Corporation, 1964-66.

## PUBLICATIONS

### BOOKS

The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm, Prentice-Hall, Englewood Cliffs, N.J., 1964; reprinted by Markham Publishing Co., Chicago, Illinois, 1967; reprinted by Eurospan Ltd., 1974; translated into Japanese and reprinted by Chikura Shobo, 1981; Chapter 4 is reprinted in Readings of Industrial Economics: Theoretical Foundations (C.K. Rowley, ed.) London, 1971.

Corporate Control and Business Behavior: An Inquiry into the Effects of Organization Form on Enterprise Behavior, Prentice-Hall, Englewood Cliffs, N.J., 1970; translated into Japanese and reprinted by Maruzen Co., Ltd., 1974.

Markets and Hierarchies: Analysis and Antitrust Implications, The Free Press, New York, 1975. Translated into Japanese and reprinted by Nippon Hyoronsha Publishing Company, 1980. Chapter 2 has been translated into Italian and reprinted in Organizzazione and Mercato (Raoul C.D. Nacamulli and Andrea Rugiadini, ed.), Bologna, 1985, pp. 161-186. Translated into Spanish (by Evangelina Nino de la Silva) and reprinted by Fondo de Cultura Economica, 1991.

The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting, The Free Press, New York, 1985; translated into Spanish by Eduardo L. Suarez and reprinted by Fondo Cultura Economica, 1989; translated into Italian by Margherita Turvani, 1987; translated into German and reprinted by J.C.B. Mohr, 1990; translated into Russian by Valery Katkalo et al. and published by AKKA, 1993; translated into French by Regis Coeurderoy and Emmanuelle Mainant and published by InterEditions, 1994.

### EDITED BOOKS

Co-editor (with Almarin Phillips) and contributor, Prices: Issues in Theory, Practice, and Public Policy, University of Pennsylvania, 1968.

Editor and contributor, Antitrust Law and Economics, Dame Publishing, Houston, 1980.

Co-editor (with Masahiko Aoki and Bo Gustafsson), The Firm as a Nexus of Treaties, Sage Publications, London, 1989.

Editor and contributor, Organization Theory: From Chester Barnard to the Present and Beyond, Oxford University Press, New York, 1990.

EDITED BOOKS (continued)

Editor and contributor, Industrial Organization, Edward Elgar Publishing Ltd., London, 1990.

Co-editor (with Sidney Winter) and contributor, The Nature of the Firm, Oxford University Press, New York, 1991.

COLLECTIONS OF OWN ARTICLES (with commentary)

Economic Organization, Wheatsheaf Publishing Ltd., Brighton, England, 1986; chapter 4 is reprinted in Juha Kinnunen, ed., Proceedings of the International Symposium on Recent Developments in Business Management Research. Helsinki, 1986; translated into Japanese by Kaoru Inoue et al., 1989; translated into Italian by Paolo Mariti and published by Il Mulino, Bologna, 1991.

Antitrust Economics, Basil Blackwell, Oxford, England, 1987.

**Curriculum Vitae**  
**GLENN A. WOROCH**

**BUSINESS ADDRESS**

*Department of Economics  
University of California  
Berkeley CA 94720*

*510 642 1507 (Direct)  
510 642 6615 (Facsimile)  
glenn@econ.berkeley.edu (Internet)*

**WORK EXPERIENCE**

*Visiting Professor of Economics, Department of Economics, University of California-Berkeley, 1993-present.*

*Senior Research Associate, California Energy Institute, University of California-Berkeley, 1993.*

*Consulting Professor, Public Policy Program, Stanford University, Spring 1993.*

*Senior Member of Technical Staff, Economics & Statistics Department, GTE Laboratories Incorporated, 1986-1992.*

*Assistant Professor of Economics, University of Rochester, 1981-1986.*

*Lecturer and Teaching Assistant, Department of Economics, University of California-Berkeley, 1978-81.*

*Research Assistant, University of California-Berkeley, 1975-80.*

*Research Assistant, Carnegie Council on Higher Education, Berkeley, CA, 1977-78.*

*Project Specialist, Institute for Research on Poverty, University of Wisconsin-Madison, Summer 1976.*

*Undergraduate Assistant, University of Wisconsin-Madison, 1971-1974.*

**EDUCATION**

*Ph.D. (Economics), University of California-Berkeley, 1983.*

*M.A. (Statistics), University of California-Berkeley, 1978.*

*B.A., University of Wisconsin-Madison, 1974*

**HONORS/AWARDS**

*Lilly Post-Doctoral Teaching Fellowship, University of Rochester, 1982-83.*

*Sloan Foundation Research Assistantship, University of California-Berkeley, 1976-77.*

*Flood Fellowship, University of California-Berkeley, 1974-75.*

*Phi Beta Kappa, University of Wisconsin-Madison, 1974.*

**PROFESSIONAL ACTIVITIES**

*Editorial Board, Journal of Regulatory Economics (Michael Crew, editor), 1988-present.*

*Editorial Board, Information Economics & Policy (Roger Noll/Karl Neumann and Donald Lamberton, editors), 1991-present.*

## PROFESSIONAL ACTIVITIES (Cont'd)

Board of Directors, International Telecommunications Society, 1987-present.

Member of the National Science Foundation's Information Infrastructure Forum, 1994.

Member of the Pricing Flexibility Workgroup, United State Telephone Association, 1992.

Member of the California Public Utility Commission's Incremental Cost Task Force, 1988-89.

Consultant to U. S. Congress, Office of Technology Assessment, 1994.

Advisor to the Office of Policy, Planning, and Analysis, U.S. Department of Energy, 1985-86.

Conference program organizer, Strategic Alliance Symposium, Boulder, CO, January 1995;  
International Telecommunications Society, Cambridge, MA, July 1988.

Session organizer, Western Economic Association International Conference, Lake Tahoe, June 1993; International Telecommunications Society, Cannes France, June 1992; 19<sup>th</sup> Telecommunications Policy Research Conference, Solomon Island, MD, September 1991; American Economic Association, New York City, December 1988.

Referee for professional journals:

Economic Journal

Information Economics & Policy

International Economic Review

International Journal of Industrial Organization

Journal of Regulatory Economics

Journal of Industrial Economics

Journal of Policy Analysis & Management

Journal of Public Economics

Telecommunications Systems

IEEE Transactions on Networks

Transportation Science

Reviewer, National Science Foundation, RAND Corporation, MacMillan Publishing, Prentice-Hall, MIT Press.

Member, American Economic Association, Econometric Society, European Association for Research in Industrial Economics, International Telecommunications Society.

## PUBLICATIONS

"Microsoft plays hardball: Use of nonlinear pricing and technical incompatibility to exclude rivals in operating software," (with Kenneth Baseman and Frederick Warren-Boulton), Antitrust Bulletin, forthcoming, June 1995.

"Current copyright protection can make economic sense," (with Kenneth Baseman and Frederick Warren-Boulton), The Computer Lawyer, **12:2**, February 1995.

"Trigger price regulation" (with David Salant), Rand Journal of Economics, **23:1**, Spring 1992.

"Promoting capital improvements by public utilities: a supergame approach," (with David Salant), Economic Theory & International Trade: Essays in Honor of John Trout Rader III, W. Neufeind and R. Reizman (editors), Springer-Verlag, 1992, 445-461.

"Crossing Dupuit's bridge again: a trigger policy for efficient investment in infrastructure" (with David Salant), Contemporary Policy Issues, **IX**, April 1991, 101-114.

"Competitive entry into the local exchange: survey of strategic models and econometric tests," appeared as Rand Paper P-7644, May 1990.



## **PUBLICATIONS (Cont'd)**

"Review of 'Regulation and Markets'," *Journal of Regulatory Economics*, December 1989.

"Regulatory risk, investment, and welfare," *Review of Industrial Organization*, **3:3**, May 1988, 75-99.

"Economics of bypass in a simple model of the telephone system," *Proceedings of the Fifteenth Annual Telecommunications Policy Research Conference*, Edward Zajak (editor), ERIC Reports, 1987, 68-96.

"Second-best pricing with upstream distortions," *Economics Letters*, June 1985.

## **COMPLETED RESEARCH PAPERS**

"Exclusionary behavior in the market for operating system software: the case of Microsoft," (with Kenneth Baseman and Frederick Warren-Boulton), forthcoming in *Sustaining Competition in Network Industries through Regulating and Pricing Access*, David Gabel and David Weiman (eds.) Cambridge University Press.

"Economics of network interconnection, mergers and divestitures," (with Nicholas Economides), to appear in *Private Networks and Public Objectives*, Eli Noam (editor).

"Turning the cables: strategic analysis of cable entry into telecommunications," December 1993.

"Monopoly pricing with network externalities," with Luis Cabral and David Salant, January 1993, revisions requested from *Rand Journal of Economics*.

"Benefits and pitfalls of network interconnection," with Nicholas Economides, New York University Stern School Working Paper EC-92-31, November 1992, revisions requested from *Rand Journal of Economics*.

"Straws in the bottleneck: a proposal for efficient provision of essential facilities," with Frederick Warren-Boulton and John Woodbury, June 1992.

"Technology, regulation, and the emergence of competitive access providers," presented for 19<sup>th</sup> Telecommunications Policy Research Conference, GTE Laboratories Technical Correspondence 0168-10-91-419, October 1991.

"Regulation and the adoption of new local service technologies," prepared for the conference on Policy Approaches to Deregulation of Network Industries, American Enterprise Institute October 1990.

"On the stability of efficient networks: integration vs. fragmentation in communications and transportation," July 1990.

"Dividing a sunk cost: a bargaining approach to regulatory treatment of powerplant cancellations," July 1989.

"Lumpy investment, capital recovery, and rate shock: comparing rate of return regulation with price caps," GTE Laboratories Technical Note 879.3, November 1989, revisions requested, *Energy and Resources*.

"Efficiency and sustainability of the telephone network with potential bypass," September 1989, revisions requested, *Information Economics and Policy*.

## **COMPLETED RESEARCH PAPERS (Cont'd)**

"Credible price control," GTE Laboratories Economics Working Paper 88-1, February 1988, revisions requested, *Journal of Regulatory Economics*.

"On pricing with lumpy investment: two problems of Boiteux," GTE Laboratories Economics Working Paper 87-2, November 1987.

"Long-term regulatory contracts," GTE Labs Economics Working Paper 86-12, January 1986.

## **MISCELLANEOUS GOVERNMENT AND CORPORATE REPORTS**

"The evolving structure of the U.S. wireless communications industry," prepared for Office of Technology Assessment, U.S. Congress, December 1994.

"The new economics of the cable television industry," prepared for Arthur Andersen Economic Consulting, April 1993.

"Cable entry into telecommunications: alternate access services," GTE Laboratories Technical Correspondence TC-0188-08-92-419, September 1992.

"Deployment of urban fiber rings by LECs and CAPs: the record to date," (with Frederick Kinzler and L. Keta Ruiz) GTE Labs Technical Correspondence TC-0189-08-92-419, August 1992.

"GTE's capital investment profile: an empirical assessment," (with L. Keta Ruiz) GTE Laboratories Technical Correspondence 0180-03-92-419, March 1992.

"Deploying telecommunications technologies on time: Challenges and opportunities for policymakers," GTE Laboratories Technical Correspondence TC-0164-09-91-419, September 1991.

"Are two regulators better than one? Economics of dual regulation of telecommunications," GTE Laboratories Technical Correspondence 0136-01-91-419, November 1990.

"A model of entry by alternative local carriers: I and II," GTE Laboratories Technical Correspondences 0132/0133-01-91-419, November 1990.

"Consistent pricing of access to a new network service," GTE Laboratories Technical Note 879.6, October 1989.

"Annotated bibliography of alternative designs for regulatory policy," GTE Laboratories Technical Note, October 1986.

"A primer on rate design with imperfect knowledge," prepared for the Office of Policy, Planning, and Analysis, U. S. Department of Energy, July 1985.

## **WORK IN PROGRESS**

"Asymmetric regulation and the race for market dominance," with Michael Salinger.

"Economics of horizontal and vertical production joint ventures."

"Incidence and impact of entry into a regulated market: the case of local exchange competition."

## REGULATORY AND LITIGATION EXPERIENCE

*"Local competition and interconnection," invited remarks submitted to the Illinois Commerce Commission in connection with Docket 92-0398, March 1993.*

*Affidavit, Motion of Bell Atlantic, BellSouth, NYNEX, and Southwestern Bell to Vacate the Modification of Final Judgment, Civil Action 82-0192, June 1994.*

## SELECTIVE PRESENTATIONS

*"Intellectual property protection for the national information infrastructure: Getting the rules right from the start," National Science Foundation's Information Infrastructure Forum, Annenberg Foundation, Washington DC, July 1994.*

*"Turning the cables: strategic analysis of cable entry into telecommunications," CITI conference, Columbia University, New York, December 1993; AEI Telecommunications Summit, Washington, July 1994; ITS Symposium, Boulder, January 1995.*

*"Monopoly pricing with network externalities," University of California at Berkeley, April 1994.*

*"Benefits and pitfalls of network interconnection," Columbia University, December 1992; University of Illinois, March 1993; University of California-Berkeley, April 1993, Western Economics Association meetings, Lake Tahoe, June 1993.*

*"An empirical model of innovative entry and a test of strategic deterrence: an application to local access markets," 20<sup>th</sup> Telecommunications Policy Research Conference, Solomon Island, MD, September 1992; University of California-Davis, May 1993.*

*"Straws in the bottleneck: a proposal for efficient network interconnection," presented at the Tenth Biennial Conference of the International Telecommunications Society, Cannes, France, June 1992; Journal of Regulatory Economics Editors' Conference, San Diego, October 1992, Western Economics Association meetings, Lake Tahoe, June 1993.*

*"Models of network interconnection," Columbia Institute for Tele-Information, December 1991.*

*"Deploying telecommunications technologies on time: Challenges and opportunities for policymakers," Michigan State University's Technical Education Conference for Regulators, San Francisco, CA, July 1991.*

*"Regulation and the adoption of new local service technologies," Boston University, May 1992; Wharton School, May 1992; Rutgers Conference on Regulation and Public Utility Regulation, San Diego, July 1991; EARIE, Ferrara, Italy, September 1991; American Enterprise Institute, October 1990; Southern Economic Association, New Orleans, November 1990.*

*"Lumpy investment, capital recovery, and rate shock: comparing rate of return regulation to price caps," Telecommunications Policy Research Conference, Airlie, VA, October 1990.*

*"Competitive entry into communications networks," NTT World Headquarters, Tokyo, July 1989.*

*"On the stability of efficient networks," ITS Conference, Cannes, France, June 1992; ORSA/TIMS conference, Denver, October 1988; Fifth World Congress on Transportation Research, Yokohama, Japan, July 1989*

*"Dividing a sunk cost: a bargaining approach to abandoned powerplants," American Economic Asso., New York, December 1988; Rutgers Public Utility Conference, Monterey, July 1989.*

February 1995